



## SAMPLE MATERIAL

### Differentiated Student Assignments

Worthington Hooker School, Connecticut

**Topic:** National Math Panel: Critical Foundations for Algebra

**Practice:** Mathematics Preparation for Algebra

Third grade teacher Paul Salem uses the attached assignment sheets to guide students' work in small groups. The open-ended assignments require students to develop a range of different solutions and justify them to their peers. The problem set up is about spending money at a carnival according to specific parameters. To develop answers, students employ basic operations in sequence.

Within the same overall problem type, the teacher developed group assignments at three levels of difficulty and then matched the problem level to students' skill levels. There are multiple solutions to each problem and students must show how they worked out solutions.

Differentiation: Problem-Solving  
Assignment at Three Levels

### Day at the Amusement Park

Imagine that you went to spend the day at a theme park. You want to ride as many fun and amazing rides as possible. Your parents give you 50.00 to spend. How did you spend your money?

- You must go on **at least four** rides.
- You must ride **at least two rides more than once**.
- You have **no change** for them at the end of the day.

	Ride Cost
Rollercoaster	6.00
Spiderman Ride	5.00
Tea Cups	3.00
Avalanche	7.00
Zoomerang	4.50
Bungee mania	9.50
Haunted House	8.50

Show your work on the chart above and give an explanation below using words on how you arrived at your answer.



Differentiation: Problem-Solving  
Assignment at Three Levels

### Carnival Problem #1

- spend  $\$10 \leq \square \leq \$20$
- show three different combinations



### Carnival Problem #2

- must spend exactly \$20
- may visit each station no more than twice
- may have lunch only once
- find as many possibilities as possible

### Carnival Problem #3

Imagine you are given **\$20.00 to spend** at a carnival. There are a number of activities that you can choose to enjoy.

- You must **spend exactly \$20.00**.
- You may not do any activity more than once.
- You must do **at least 5 activities**—you may or may not include lunch.
- Find as many possibilities as you can!

Ferris Wheel	5.00
Bumper Cars	3.00
Gravitron	7.00
The Zipper	2.50
Lunch	9.00
Basketball Shot Game	1.00
Spin-O-Rama	4.50
Mirror Maze	2.00

Show your work below: